

SWAT producing no data

Posted by Mallo - 2008/10/22 00:16

When I get to the final step of running the SWAT process, it produces no data (the attribute table is empty). Everything else seems to run fine up to that point, so I have a feeling it has something to do with my precipitation and temperature data. Can anyone help??

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Re:SWAT producing no data

Posted by Nicholas Hayden - 2008/10/30 00:27

Does your discretization subwatershed shapefile have any values in it (they will appear after "element parameterization")? If so, that will cause the SWAT process to fail. It won't say it failed, it'll just produce an empty data set.

If this is your problem, the way around it is to adjust the contributing CSA sizes. For whatever reason, sometimes the subwatersheds won't work, but if you adjust their sizes you can find a CSA% that will work.

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Re:SWAT producing no data

Posted by isburns - 2008/11/03 17:19

Try running SWAT from the command prompt and see if there is an error. If there is, what it says should help narrow down what the problem is.

- Open a command prompt (type cmd from the Run menu on the Windows Start menu)
- navigate (type cd to change directories) to the simulation directory at the command prompt (the simulation directory will be located in a simulations subdirectory of a directory named after your discretization, which is in a directory named after your delineation, which is in the workspace directory you designated in the Delineation form, eg \simulations)
- enter swat2000 to run the model

Shea

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Re:SWAT producing no data

Posted by karrez - 2008/11/06 21:38

i ran my simulation using the above method and this is what the results look like. obviously there is something wrong here but i can't tell by looking at it what the problem is. do you have any idea?

SWAT2000

Soil & Water Assessment Tool

PC Version

Program reading from file.cio . . . executing

forrtl: severe (24): end-of-file during read, unit 2, file

D:\Studentreznicek\THESIS\AGWA\workingsubbasinsubbasindisc

simulationssubsimfile.cio

Image	PC	Routine	Line	Source
swat2000.exe	005B6649	Unknown		Unknown Unknown
swat2000.exe	005B6461	Unknown		Unknown Unknown
swat2000.exe	005B5634	Unknown		Unknown Unknown
swat2000.exe	005B5A9D	Unknown		Unknown Unknown
swat2000.exe	005AB11A	Unknown		Unknown Unknown
swat2000.exe	0045BF48	GETALLO	124	getallo.f
swat2000.exe	0048FE10	MAIN	68	main.f
swat2000.exe	005DFEB9	Unknown		Unknown Unknown
swat2000.exe	005D2764	Unknown		Unknown Unknown
kernel32.dll	7C816FD7	Unknown		Unknown Unknown

Re:SWAT producing no data

Posted by karrez - 2008/11/19 21:43

i started over with the whole process using the same elevation, landcover, precip, and temperature data but re-downloading and importing the soil data. i created a new database, delineation, discretization, etc., and i also downloaded and used the swat2005 model in the command line window and got a nearly identical readout. just fyi.

Re:SWAT producing no data

Posted by isburns - 2009/01/09 17:34

You're right, that error message isn't very informative. If you're still having problems, zip the simulation folder and attach it to your post and I'll take a look.

Thanks

Shea

Re:SWAT producing no data

Posted by karrez - 2009/01/09 20:16

i messed around with it for a couple weeks after my last post then just left it alone until i recieved your

reply. i have realized that the problem is not with the execution of the model like i had thought, but rather with the simulation file which was created while writing SWAT precipitation. so the problem i have to figure out now is why my simulation is empty. the only files present are the c and p dbf files, plus the swat2003 application i downloaded.

Am i correct in my belief that the writing of the swat precipitation should populate the simulation folder? or is this folder populated when the model is ran rather than written?

i hope that makes sense. :)

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Re:SWAT producing no data

Posted by isburns - 2009/01/09 21:23

I'm not certain if I'm following you. Writing the swat precipitation only writes a single .pcp file into the \rainfall directory. After that, you must write the input files, which copies the model executable and selected SWAT precipitation file from the rainfall directory into the \simulations folder in addition to writing the rest of the input files. Next, you run the model, which doesn't do anything but open a command prompt and execute the selected simulation. Finally importing the results creates the c and p dbf files whether the model was successfully run or not. If it was not successfully run, the tables will be empty and you'll have no data when you try to view the results.

If the simulation directory is empty except for the dbfs, it sounds like you created the simulation directory by hand without writing the input files (which creates the simulation directory) via the AGWA interface. There should be over a hundred files in the simulation directory after writing the input files.

Shea

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Re:SWAT producing no data

Posted by karrez - 2009/01/12 20:52

i just spent 45 minutes writing a response to this post only to have it deleted when i submitted it because i was automatically logged off at some point. so this is going to be much more brief than i'd originally planned. :)

i was confused as to the point at which the simulation folder is populated with data, but now i understand. my problem is that the data is not being successfully written into the simulation folder during the "write SWAT precipitation" step for some reason. the simulation folder is created but its empty!

Where is the SWAT model application supposed to be located; in the "simulation" folder, in the "datasets" folder with the rest of the datasets and files, or does it have to be in it's own "models" folder within the datasets folder?

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Re:SWAT producing no data

Posted by Carlene - 2009/01/16 13:43

I'm having the exact problem as you are having. If I come up with anything I would let you know but for now I'm stuck!

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Re:SWAT producing no data

Posted by Pandach - 2009/01/28 00:32

I am using the SWAT model. I got a similar error as this topic.
How did you deal with the error? How to fix it?
Thank you very much.

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Re:SWAT producing no data

Posted by karrez - 2009/01/28 01:35

i haven't figured it out yet. i have moved on to other portions of my research for the time.

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Re:SWAT producing no data

Posted by karrez - 2009/02/04 19:47

i figured out my problem. use the data structure recommended on page 28 or 29 of the AGWA 2.0 manual. when you download AGWA2, separate folders are provided for datafiles, mxds, workspace, temp, etc. use this format! i used my own data structure originally because it made more sense to me, but apparently during the "write SWAT precipitation" step you have to have your data in this format for the process to execute successfully.

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Re:SWAT producing no data

Posted by Carlene - 2009/02/06 16:11

I tried what you recommended but I'm having the same problem (no data!). Could someone please have a look at my data and tell me what I'm doing wrong? Thank you!

Re:SWAT producing no data

Posted by isburns - 2009/02/18 18:22

Sorry it's taken me awhile to respond. I'll try and answer some of the questions that were raised even though some of the problems have already been resolved.

When you complete the "Write SWAT Precipitation" step, the simulations directory is not created. It is created during the "Write Input Files" step. The precip directory is created during the "Write SWAT Precipitation" step along with the .pcp file that was entered in the "Enter a name for the precipitation file" textbox.

The SWAT executables, swat2000.exe (SWAT 2000) and swat2003_mod.exe (SWAT 2005), must be located in the models subdirectory of the HOME folder specified in the AGWA2 Preferences form. The datafiles subdirectory and all of its subdirectories must also be located in the HOME folder specified in the AGWA2 Preferences form. The documentation subdirectory must also be located in the HOME folder specified in the AGWA2 Preferences form. The mxds, temp, and workspace directories are suggested directories and are not required to be in that location.

However, any directories and outputs created in the location specified for the "Workspace" in the "Output Location" box of the Delineator form does must not be changed and I think this is where some problems arose for karrez. If you move or rename any of the subdirectories created in the location specified for the Workspace in the Delineator form, you will run into problems. These must not be changed.

During the "Write Input Files" step, the SWAT executable is copied from the models directory to the simulation directory and the input files for the simulation are created in the simulation directory. The simulation directory is not the simulations directory referred to earlier that is located at the same level as the precip directory. Rather, it is a subdirectory of that simulations directory with the a name that was specified as the "Name of Simulation" in the "Simulation Name" box of the form opened during the "Write Input Files" step.

Carlene, if you are still having problems, zip the simulation directory, not the entire simulations directory, and upload it to your message. It must be a .zip file and should be 1000 kb or less. The simulation directory should be plenty small enough after being zipped.

Shea

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Re:SWAT producing no data

Posted by marnen - 2009/06/21 14:04

Hello,

I'm having the almost the same problem. When I run SWAT2000.exe from the command prompt, I get the message:

forrtl: severe (24): end-of-file during read, unit 9, file C:sim4sim4.fig

.

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And when I look file sim4.fig in my simulation directory, it is really empty (0 KB).

Does anybody have an idea what I should do.

Thanks in advance,

Nesha

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Re:SWAT producing no data

Posted by isburns - 2009/06/27 21:46

Can you take a screenshot of the command window when the model fails and attach it to this thread? It should help determine what is going on.

Thanks

Shea

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Re:SWAT producing no data

Posted by avogl - 2010/02/04 18:52

I'm getting the same end-of-file error mentioned here.

My directory structure should be fine, I am able to run KINEROS simulations. 385 input files were written to the sim directory before trying to run SWAT2005 and 19 new files were written after attempting the simulation but many output files contain only headers, no data.

I've attached two zipped sim directories and screen shots of the error. In sim1, I chose to use observed precip and generate temp from a weather station. In sim2, I chose to use observed precip and observed temp and manually chose those files.

Any ideas?

-Adrian

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Re:SWAT producing no data

Posted by avogl - 2010/02/04 18:56

Here is the first sim zip file. I deleted the swat2003_mod.exe file from this zip because it made the file size too big to upload.

<http://www.tucson.ars.ag.gov/agwa/images/fbfiles/files/sim1-c98e089852b63bad9e9496cbac022fe5.zip>

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Re:SWAT producing no data

Posted by avogl - 2010/02/04 18:56

...and here's the second. <http://www.tucson.ars.ag.gov/agwa/images/fbfiles/files/sim2.zip>

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Re:SWAT producing no data

Posted by isburns - 2010/02/11 05:40

Hi Adrian,

In both cases, the SWAT precipitation file is the culprit. The SWATprec1.pcp file begins on day 32 of year 2005, yet the file.cio has the simulation start on day 1 of year 2005. I thought there was error trapping to prevent the selection of a start date that occurs before the start of the precipitation record, but it must just be there for KINEROS-OPUS or it doesn't catch all cases. I'll make a note to update the code.

Anyway, there are a few ways you can fix the problem: you can change the start date in the SWAT Input Files form to match the start date of the precip record; you can edit the file.cio file to change the start date to the first day of the precipitation record and make sure the number of years simulated and end date of the simulation don't exceed the data record; or, you can rewrite the precipitation files using an unweighted precipitation file that starts on day 1 of the year so that you don't have to worry about setting the start date in the form or in the file.cio.

Shea

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